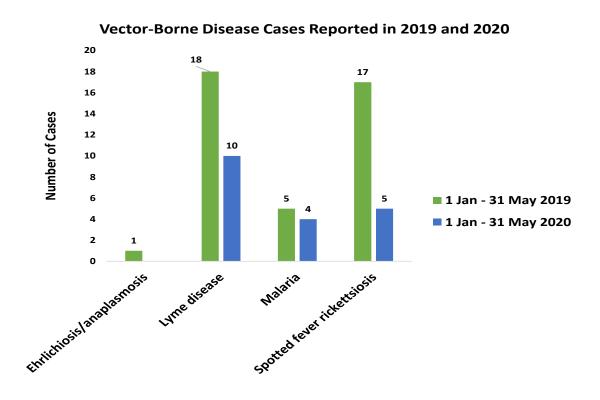
# Army Vector-borne Disease Report

## Disease Reporting System internet (DRSi) Surveillance

From 1 January 2020 to 31 May 2020, 19 vector-borne disease (VBD) cases, with onset dates during the specified time period, have been reported in the Disease Reporting System internet (DRSi). Forty-seven percent (n=9) of the cases were among Active Duty Service Members, and 74% (n=14) of cases were male. To date, the largest number of VBD cases was diagnosed among individuals who were 18-29 years of age (n=6, 32%). During the same time period in 2019, 41 cases were reported in the DRSi; this represents a 54% decrease in the number of cases from 2019 to 2020 during the specified time period.

A total of three VBD cases were reported to the DRSi in May 2020, and all of the cases were males. Of the 3 cases, two (67%) were diagnosed with Spotted fever rickettsiosis (SFR) and one (33%) with Lyme disease. Two of the three cases reported outdoor activity prior to symptom onset. During May 2019, 41 VBD cases were reported, which is 93% more than what was reported in May 2020.



Time periods: 2019: 1 January 2019 through 31 May 2019 | 2020: 1 January 2020 through 31 May 2020.

The values shown for DRSi surveillance represent all individuals that were diagnosed at Army locations and Army beneficiaries diagnosed at non-Army locations. Values are based on onset dates.

**Army Public Health Center** 

# Army Vector-borne Disease Report

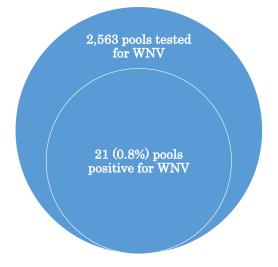
#### A Look at 2020 Vector Testing

As of 24 February 2020, 54 mosquitoes have been submitted for testing in 2020. All mosquitoes were received from Public Health Command-Europe (PHC-E). Similarly, PHC-E submitted 226 ticks for testing as of 27 May 2020. None of the mosquitoes tested positive for any pathogen, but 4.0% (n=9) of the ticks tested positive for at least one pathogen. Collection and testing volumes so far this year are low compared to previous years due to the COVID-19 pandemic.

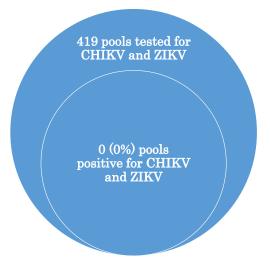
### Army Mosquito Testing: 2019 Summary

West Nile Virus (WNV) was the most prevalent pathogen detected in collected mosquito specimens and incidence typically peaks from July to August. PHC-Atlantic (PHC-A) and PHC-Central (PHC-C) tested 2,563 pools (27,176 vector mosquitoes) for West Nile virus (WNV); PHC-Central tested 56% (n=1,436) of the total number of pools. Of the total number of pools tested, 0.8% (21 pools, 364 vector mosquitoes) were positive for WNV. The largest numbers of positive pools in 2019 were documented in July and August (n=14 and n=7, respectively). PHC-C tested 89% (372 pools, 1,272 vector mosquitoes) of the 419 pools for chikungunya virus (CHIKV) and Zika virus (ZIKV), while PHC-A tested the remaining 11% (47 pools, 114 vector mosquitoes); no pools were positive for either pathogen.

2019 Mosquito Testing: WNV



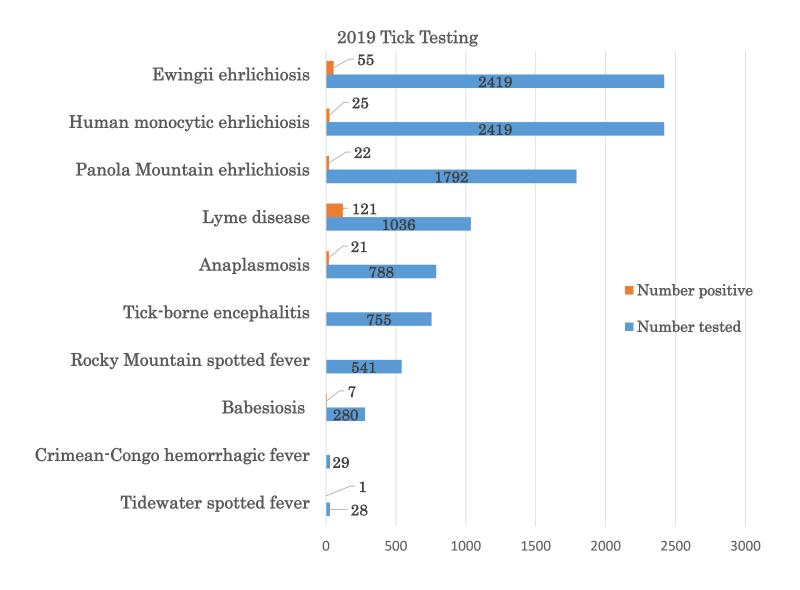
2019 Mosquito Testing: Other



## Army Vector-borne Disease Report

### Army Tick Testing: 2019 Summary

The bacteria that causes Lyme disease, *Borrelia burgdorferi*, was the most prevalent pathogen detected in submitted tick specimens; incidence of Lyme disease in ticks tends to peak during mid to late May. In 2019, the pathogens most commonly tested for were *Ehrlichia chaffeensis* (n=2,419), the causative agent for human monocytic ehrlichiosis, and *E. ewingii* (n=2,419), the causative agent for Ewingii ehrlichiosis. Lyme disease had the highest percent-positive value of any disease for the year at 11.7%; this was followed by anaplasmosis (caused by *Anaplasma phagocytophilum*) at 2.7%. The highest percent-positive values in 2019 for Lyme disease and anaplasmosis were documented in May 2019 (16.4% and 4.1%, respectively). All ticks tested were collected from humans, animals, or the environment.





# Army Vector-borne Disease Report





#### Corona and Lyme? Not in our Military!

(Previously published in the Armed Forces Pest Management Board's Newsletter)\*

With the novel coronavirus (COVID-19) sweeping the US and the world, it's easy to forget about other more mundane risks to our health. However, as spring and summer ramp up, and more and more people are spending their time social distancing outside, it's important to remember that ticks are becoming more active outside as well. After spending time outside in tick habitat (that's anywhere where there is brush, tall grass, or leaf litter, but even lawns can have ticks) it's important to remember to do a thorough tick check of yourself and any family members. Ticks can be very tiny, smaller than a sesame seed, and while the bacteria that cause Lyme disease usually take about 48 hours of tick attachment to transmit from the tick to a person, other pathogens can transmit much faster. It's always safest to remove a biting tick as quickly as possible, following the instructions here: <a href="https://phc.amedd.army.mil/PHC%20Resource%20Library/HowtoCheckforTicksandRemoval">https://phc.amedd.army.mil/PHC%20Resource%20Library/HowtoCheckforTicksandRemoval</a> FS 18-092-0919.pdf.

#### I have a tick bite! Now what?

If you've found and removed a tick from yourself or a family member, the Army Public Health Center can help. You can submit your tick for free by mail to MilTICK, which stands for the Military Tick Identification/Infection Confirmation Kit program. Whether you have access to a tick test kit (available at most military treatment facilities) or not, you can still submit your tick to the Tick-Borne Disease Laboratory where trained professionals will identify it to species, and then test it for the presence of any pathogens that can make you sick. Different ticks carry different pathogens, so it's important not to damage your tick before you send it, so that the MilTICK staff can identify your specimen and make sure it is tested appropriately. MilTICK staff will be in touch as soon as the tick is received with the identity of the tick, and results of the test are generally reported within two weeks. For instructions on how to submit your tick, visit: <a href="https://phc.amedd.army.mil/PHC%20Resource%20Library/MilTICKforms">https://phc.amedd.army.mil/PHC%20Resource%20Library/MilTICKforms</a> 2020.pdf

#### How your participation keeps other safe

All the data from the MilTICK program is de-identified and published online on a CAC-enabled data dashboard (visit: <a href="https://carepoint.health.mil/sites/ENTO/miltick">https://carepoint.health.mil/sites/ENTO/miltick</a> to view this resource). MilTICK (formerly the DOD Human Tick Test Kit Program, or HTTKP) has been collecting data about ticks biting military beneficiaries since the 1990s, and this long term dataset helps scientists track tick-borne diseases like Lyme Disease, and predict when they will arrive in new places and pose a threat to new populations. The more participation in MilTICK, the more information is available to help pinpoint Military Installations where the risks of tick-borne disease may be changing. The APHC can then work with health care professionals, environmental health personnel, and entomologists on the ground to keep Military personnel safe.

Stay safe and keep others safe this tick season – spread the word about ticks! For more information, including fact sheets and other resources, visit the MilTICK website: <a href="https://phc.amedd.army.mil/topics/envirohealth/epm/Pages/">https://phc.amedd.army.mil/topics/envirohealth/epm/Pages/</a> HumanTickTestKitProgram.aspx

\*Permission granted to re-publish in this report.